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PREDICTS HELICOPTER TRANSPORTATION SYSTEM IN POLAND

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Recently, the Polish daily press reported that within the next 3 years a regular helicopter transportation system will be operating in Poland. This helicopter system will connect not only large and small cities but also industrial centers which are situated outside the cities.

Some of the present disadvantages of helicopter service are as follows: slow speed (about 150 kilometers per hour), complicated structure, noise, and high operating costs resulting from the unprofitable ratio between the power of the engine and the number of passengers transported.

Within 5 or 6 years, helicopters will become so efficient that they will be able to compete effectively with planes on regular air lines. At present, helicopters are used only as auxiliary planes to transport passengers from airport to city. The development of the helicopter from its function as a "bus" to an independent means of interurban transportation will take place in three stages. During the first stage, a small single-engine type helicopter will be used to handle traffic between airport and city and to handle postal and taxi service. During the second stage, a multiengine type helicopter of medium size, able to carry 10-12 passengers, will be used to carry passengers on short interurban routes. During the third and final stage, a large type helicopter with a speed of about 240 kilometers per hour will be used to carry about 40 passengers on routes as long as a few hundred kilometers.

According to one of the most famous experts [not further identified] on helicopter transportation, the following technical requirements will be necessary for helicopters to compete effectively with airplanes such as the "Li-2" type:

1. Equipped with at least two engines.
2. Capacity to transport 30 passengers within a minimum range of 180 kilometers.
3. Fuel supply for a round trip of 360 kilometers, i.e., 180 kilometers each way.
4. Reserve fuel supply for one additional hour.
5. Cruising speed of 220 kilometers per hour at an altitude of 600 meters.
6. Capability to climb vertically 3 meters per second.
7. Capability to operate on one engine at a cruising speed of 180 kilometers per hour.
8. Speed of climb of 2 meters per second on one engine.
9. Capability to land and take off within a circle having a diameter of 120 meters, surrounded by obstacles.
10. Capability to execute an autorotational landing within a circle having diameter of 130 meters, surrounded by obstacles.
11. Simple construction, ease of serviceability, stability, and economy of operation.

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12. Passenger comfort, air conditioned cabins, and acoustic insulation.

13. Capability to land blind.

Construction progress up to now indicates that future large helicopters for passenger service most probably will be similar to the British helicopter, the Bristol 173. Engineers plan to increase the speed of the helicopters by adding small, rigid airfoils and drive propellers or turbojet engines. Passenger comfort and vision will be improved by constructing a long fuselage similar to that of the Bristol 173, which resembles the fuselage of the latest passenger plane.

[Article is accompanied by a diagram (Photo No 152207) with labels showing a helicopter considered ideal for regular helicopter service.]

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